anyQuery
User's Manual
(Version 2.5)

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1 Introduction

1.1 Versions of the document

This is the version 2.5 of the ***anyQuery*** manual. The screenshots are updated to the current version 2.5 and the new functionality description are added.

In the version 2.3 of the manual, the screenshots are taken from the program version 2.2.0. They may be different from higher versions. The functionality has been changed or enhanced in some places.

The second version of the manual for **anyQuery** it's based on version 2.0.10. Quite a lot of new functions have been integrated into **anyQuery**, so there was the need to completely rewrite this manual. Take a look at *Changes and additional Functions* for an overview of new functions and changes to prior versions.

1.2 Glossary

Grid	dialog element to display and edit data by columns and rows.
Combobox	dialog element to choose from a list which drops down for selection.
Checkbox	dialog element to set or reset an option.
Tab	dialog element to categorize control elements in a window..
.udl-File	data Link File to define an OLE DB connection.
drag und drop	a method to move objects with the mouse on the screen.

2 Purpose and Overview

2.1 Purpose of anyQuery

anyQuery is a special tool to work with **all** different kinds of databases.

Because the developer team of PLANWARE frequently does database development, real soon a tool became necessary in order to simplify the work with databases. Extensive investigation brought up only some poorly performing tools or excellent ones like the QueryAnalyser of SQL-Server, but this one is bound to SQL-Server.

By and by **anyQuery** was developed according to the requirements we encountered each day. Most important was the possibility to work with many different databases like SQL-Server, Oracle, DB2 or MS Access (which is well-known as an eager producer of parenthesis within its queries...).

2.2 Overview of this document

In Chapter *Changes and additional Functions* you will get a short overview of the changes and new functions in comparison to prior versions.

In Chapter *Functions and System Requirements* **anyQuery** is described with its features and system requirements. For restrictions and known bugs please refer to the ***Readme*** textfile.

In Chapter *Registering anyQuery* instructions how to register and activate **anyQuery**.

In Chapter *User Interface* the user interface of **anyQuery** and its functions are described in detail.

In Chapter *Working with anyQuery* all functionalities of **anyQuery** are described in the order of common workflow.

In Chapter *SQL-Links* you will get some useful links to SQL and database resources.

3 Changes and additional Functions

3.1 New or enhanced Functions

- simple report writer
- session logging in one window and gridview
- transaction processing
- search and replace in the SQL editor
- working with multiple scripts
- comment and uncomment row
- increase/reduce line indent
- sorting, grouping, group footers
- a clear user interface
- pick lists
- enhanced DDL commands with database specific type list
- new database explorer
- new install routine
- enhanced database support (MySQL,…)

3.2 Changes you should know

Version 2.3 compared to previous versions:

normal one line comments starts with `//`

```
// this is a comment
```

the old style comments with `/* ... */` can span more than one line.

4 Functions and System Requirements

4.1 Functionality

- access to different databases by udl-files
- english and german version
- syntax coloring
- creation of SQL queries and scripts with SQL builder
- command line parameters for batch processing
- database explorer
- simple report writer
- session logging
- transaction processing
- search and replace in SQL editor
- working with multiple scripts
- sorting, grouping, group footers
- a clear user interface
- pick lists

4.2 System Requirements

anyQuery runs on Windows 98, Windows NT 4.0, Windows 2000 and Windows XP.

4.3 Restrictions

For all Windows platforms, except Windows XP, the „DataAccessPack 2.7“ is needed. This database package can be downloaded from the Microsoft web site www.microsoft.com/Data for free.

5 Registering anyQuery

5.1 How to register

To get rid of the message boxes telling you have to register your version of anyQuery and order a license key from http://www.planware.com. Having received your license key please go to the ***?*** menu (help menu) and click on the ***About anyQuery*** item to open the about dialogue.

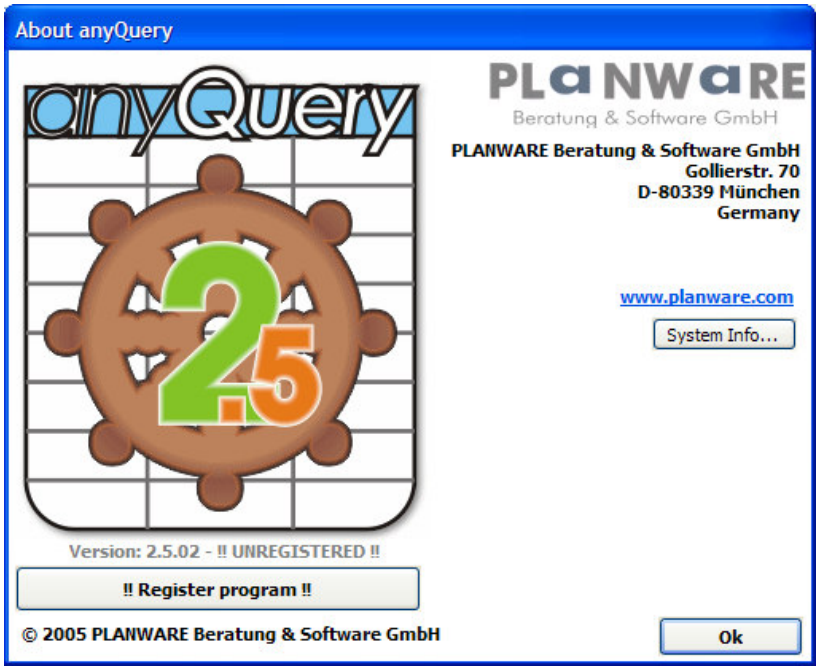


Fig. 1 about dialogue

Within the about dialogue click on the ***Register Program*** button to open the ***Enter Registration Key*** dialogue to fill in your license key.

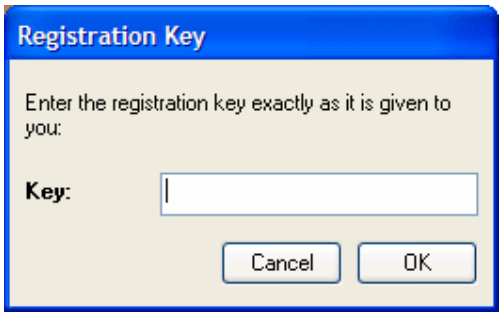


Fig. 2 Enter Registration Key dialogue

The license key is in the form of 4 groups of 3 characters separated by a dash. Having entered the license key click on the ***OK*** button. After restarting anyQuery you should no longer be prompted to register.

6 *User Interface*

6.1 anyQuery and Batch Processing

For batch processing **anyQuery** also can be invoked from the command line. For this you can use the following parameters:

database connection	/INI:<path to udl-file>
user	/USR:<username>
password	/PWD:<password>
query	/QRY:<path to qry-file>
run immediately	/RUN

6.2 Main Window and Menu Bar

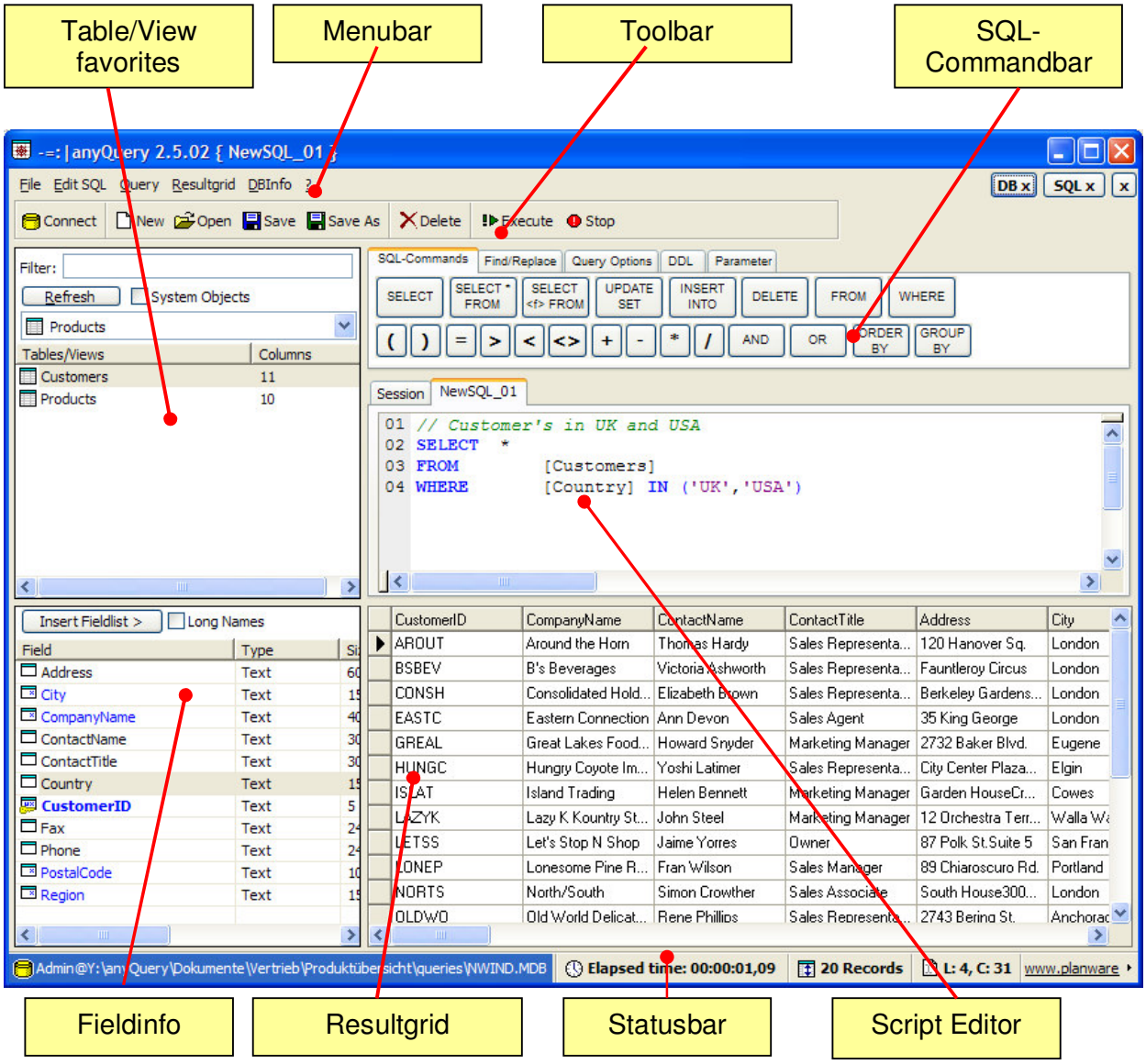

Table/View favorites
Menubar
Toolbar
SQL-Commandbar
-=:| anyQuery 2.5.02 { NewSQL_01 }
File Edit SQL Query Resultgrid DBInfo ?
Connect New Open Save Save As Delete Execute Stop
DB x SQL x x
Filter:
Refresh System Objects
Products
Tables/Views Columns
Customers 11
Products 10
SQL-Commands Find/Replace Query Options DDL Parameter
SELECT SELECT * FROM SELECT <f> FROM UPDATE SET INSERT INTO DELETE FROM WHERE
( ) = > < <> + - * / AND OR ORDER BY GROUP BY
Session NewSQL_01
01 // Customer's in UK and USA
02 SELECT *
03 FROM [Customers]
04 WHERE [Country] IN ('UK','USA')
Insert Fieldlist > Long Names
Field Type
Address Text
City Text
CompanyName Text
ContactName Text
ContactTitle Text
Country Text
CustomerID Text
Fax Text
Phone Text
PostalCode Text
Region Text
CustomerID CompanyName ContactName ContactTitle Address City
AROUT Around the Horn Thomas Hardy Sales Representa... 120 Hanover Sq. London
BSBEV B's Beverages Victoria Ashworth Sales Representa... Fauntleroy Circus London
CONSH Consolidated Hold... Elizabeth Brown Sales Representa... Berkeley Gardens... London
EASTC Eastern Connection Ann Devon Sales Agent 35 King George London
GREAL Great Lakes Food... Howard Snyder Marketing Manager 2732 Baker Blvd. Eugene
HUNGC Hungry Coyote Im... Yoshi Latimer Sales Representa... City Center Plaza... Elgin
ISLAT Island Trading Helen Bennett Marketing Manager Garden HouseCr... Cowes
LAZYK Lazy K Kountry St... John Steel Marketing Manager 12 Orchestra Terr... Walla Wa
LETSS Let's Stop N Shop Jaime Yorres Owner 87 Polk St.Suite 5 San Fran
LONEP Lonesome Pine R... Fran Wilson Sales Manager 89 Chiaroscuro Rd. Portland
NORTS North/South Simon Crowther Sales Associate South House300... London
OLDWO Old World Delicat... Rene Phillips Sales Represenia... 2743 Bering St. Anchorac
Admin@Y:\anyQuery\Dokumente\Vertrieb\Produktübersicht\queries\NWIND.MDB
Elapsed time: 00:00:01,09
20 Records
L: 4, C: 31
www.planware
Fieldinfo
Resultgrid
Statusbar
Script Editor

Fig. 3 anyQuery User Interface

6.2.1 Menubar

Fig. 4 Menubar

6.2.1.1 File Menu

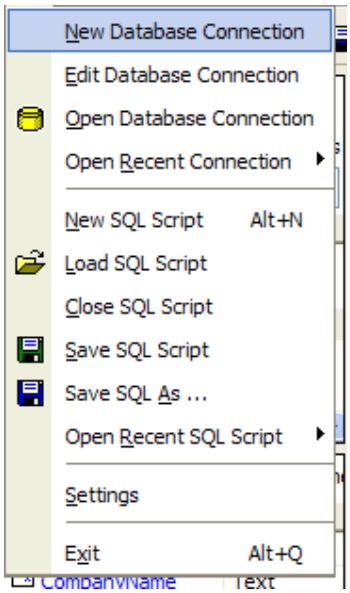


Fig. 5 File Menu

Within the ***File Menu*** you will see the following menu items:

New Database Connection for creating a new database connection (see *Creating a Database connection*).

Edit Database Connection for editing an existing udl-file (see *Modifying a Database Connection*).

Open Database Connection connects to database via the predefined udl-file (see *Opening a Database Connection*).

Open Recent Connection opens a Submenu with the last used connections (see *Opening a Database Connection*).

For detailed description and examples of the following items see *Working with Queries and Scripts*.

New SQL Script creates an empty SQL worksheet.

Load SQL Script loads a saved query definition (.qry) to the SQL editor.

Close SQL Script closes the active SQL worksheet.

SQL Script Save saves the active query with the assigned name.

SQL Script Save As lets you assign a name and location where to save it to the query.

Open Recent SQL Script opens a Submenu with the last used scripts.

Settings let you modify some path and editing preferences (see *Settings Dialogue*)

Exit quits an anyQuery session.

6.2.1.2 Edit SQL Menu

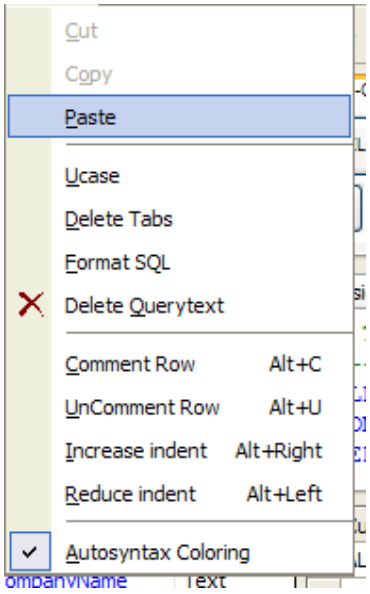


Fig. 6 Edit SQL Menu

Within the ***Edit SQL Menu*** you will see the following menu items:

Cut text in the SQL Editor

Copy text in the SQL Editor

Paste text in the SQL Editor

Ucase converts the content of the SQL editor to upper case.

Delete Tabs deletes all tabulators from the content of the SQL editor.

Format SQL formats the content of the SQL editor.

Delete Querytext deletes the content of the SQL editor without saving any changes.

Comment Row adds a comment sign // to the beginning of each selected line

UnComment Row removes a comment sign // from the beginning of each selected line

Increase Indent increases the indent of all selected lines

Reduce Indent reduces the indent of all selected lines

Auto Syntax Coloring colors keywords, comments and operators word by word.

6.2.1.3 Query Menu

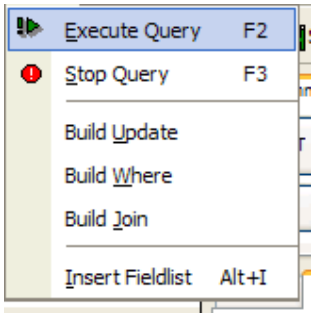


Fig. 7 Query Menu

Within the ***Query Menu*** you will see the following menu items:

Execute Query executes the actual query (see *Function Execute*), as a shortcut you can also press F2.

Stop Query cancels a running query (see *Function Stop*), as a shortcut you can also press F3.

Build Update builds an Update-Set statement for the currently selected table, all key fields included and the selected row from the result grid.

Build Where builds a Where-Statement for the currently selected table, all included key fields and the selected row from the result grid.

Build Join builds a simple Join-Statement for the currently selected tables.

Insert Fieldlist inserts all selected Fields into the active SQL worksheet.

6.2.1.4 Resultgrid Menu

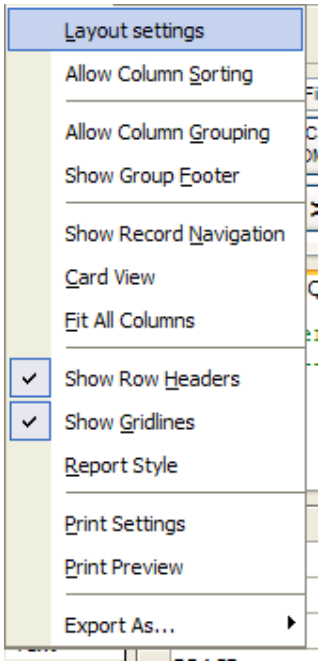


Fig. 8 Resultgrid Menu

Within the ***Resultgrid Menu*** you can see the following menu items:

Layout settings customizes the resultgrid layout for the Screen- and Printerview (Report).

Allow Column Sorting enables sorting of data in the result grid (see *Building a report*).

Allow Column Grouping enables grouping of data in the result grid (see *Building a report*).

Show Group Footer displays a group footer in the result grid at the end of each data group (see *Building a report*).

Show Record navigation displays buttons for record navigation at the bottom of the result grid.

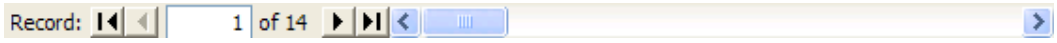


Fig. 9 record navigation

Card View switches the grid to a card file view.

Fit All Columns resizes all columns to fit best to the width of the resultset data (see *Building a report*).

Show Row Headers shows a record selector for each row when enabled.

Show Gridlines shows grid lines when enabled.

Report Style shows record selectors and column headers in a report style when enabled.

Print Settings opens a dialogue to configure print settings (see *Building a report*).

Print preview generates a print preview of the result (see *Building a report*).

Export as stores the query result into a text-, XML- or (X)HTML- file (see *Editing a Query*).

6.2.1.5 DBInfo Menu

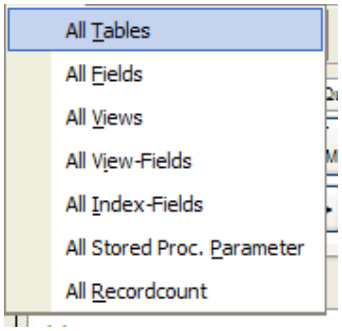


Fig. 10 DBInfo Menu

Within the ***DBInfo Menu*** you will see the following menu items:

All Tables creates a text file of all table names of the active database.

All Fields creates a text file of all field names of the active database.

All Views creates a text file of all view names of the active database.

All View-Fields creates a text file of all view field names of the active database.

All Index-Fields creates a text file of all index fields names of the active database.

All Recordcount creates a text file with the record count of all tables of the active database.

The text files are created in the **anyQuery** directory. These files can also be imported into MS Word or MS Excel.

For a detailed description of this items see *Exporting Database Information*.

6.2.1.6 "?" Menu

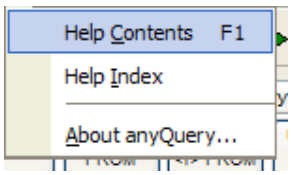


Fig. 11 ? Menu

In this menu you will find the ***About dialog*** with some version information and a link to our web site www.planware.com.

Please feel free to contact us and tell us your suggestions about anyQuery.

In an unregistered version of anyQuery you will also find a button to register this software.

Further more you will find the online help documents in this menu. You can also get there by pressing ***F1***.

6.2.2 Functions of anyQuery

You will find some of the more often used functions on the Toolbar.

Fig. 12 Toolbar

6.2.2.1 Function Open

The ***Open button*** will load a stored query into the SQL editor. There are several extensions for query files, except reports they are all interpreted the same way. A report consists of two files, the query ****.qry*** and a report definition ****.bin***.

6.2.2.2 Function „Connect“

The ***„Connect button***“ opens a new database connection using a .udl File.

6.2.2.3 Function „New“

The ***„New button“*** opens a new SQL-Editor Tab window

6.2.2.4 Function Save

The ***Save button*** will store all changes and modifications of your query.

6.2.2.5 Function SaveAs

The ***SaveAs button*** stores the displayed query under a different name in the selected directory.

6.2.2.6 Function Delete Query

The ***Delete Query button*** will drop the currently displayed content of the SQL-editor without saving any changes.

6.2.2.7 Function Execute

The ***Execute button*** runs the Query. Press function key ***F2*** as a shortcut for running queries.

6.2.2.8 Function Stop

The ***Stop button*** interrupts the currently running query. Function key ***F3*** serves as a shortcut.

6.2.3 Table and View Area

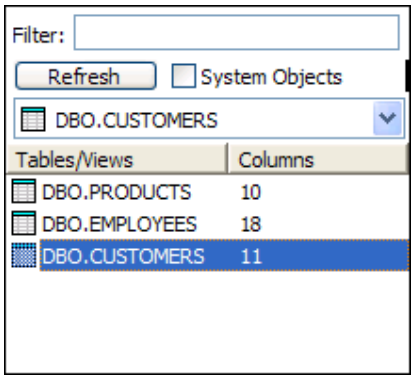


Fig. 13 table and view area

In the table and view area you will find several elements to browse, filter and select tables and views from the set of available objects in your database.
The second element from the top is a combo box from which you can pick a table, the table will immediately be shown in the list box below.
The ***filter box*** on top allows you to filter a subset of all tables or views by a portion of their names. You can e.g. filter a certain database owner. After changing the filter you have to click the ***Refresh button*** to reload the combo box.

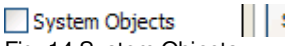


Fig. 14 System Objects

By choosing the ***System Objects option*** system tables are additionally loaded to the ***tables/views combo box***.

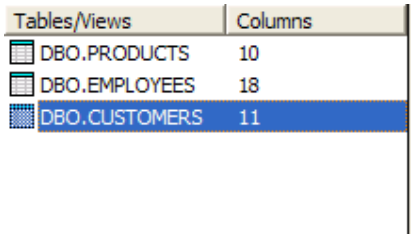


Fig. 15 table/view list

A double-click on one of the listed tables/views will insert the table/view name into the SQL-editor right to the current cursor position.

6.2.4 Field Area

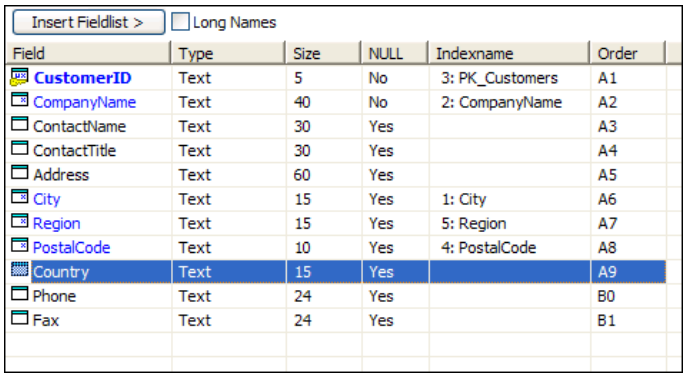

Insert Fieldlist >
Long Names
Field
Type
Size
NULL
Indexname
Order
CustomerID Text 5 No 3: PK_Customers A1
CompanyName Text 40 No 2: CompanyName A2
ContactName Text 30 Yes A3
ContactTitle Text 30 Yes A4
Address Text 60 Yes A5
City Text 15 Yes 1: City A6
Region Text 15 Yes 5: Region A7
PostalCode Text 10 Yes 4: PostalCode A8
Country Text 15 Yes A9
Phone Text 24 Yes B0
Fax Text 24 Yes B1

Fig. 16 field area

Right above you can see the ***field list***, where all fields of a selected table are listed. **anyQuery** will display the fieldname, the datatype, the field size, a statement for null ability and some information about the index.

A double-click on one of the listed fields will insert the field name into the ***SQL Editor*** right to the current cursor position.

You can select more than one field and insert this list of fields by clicking on ***Insert Fieldlist*** button.

By choosing the ***Long Names option*** the owner and table names are prefixed to the field name when inserted to the SQL-editor.

The ***Indexname column*** gives you some information about which fields belong to which index (indexname) and the number shows you in which order they appear in the database.

6.2.5 SQL-Commandbar Tab

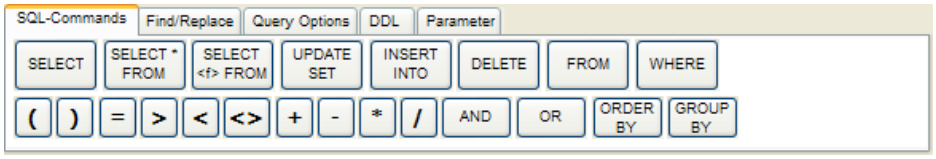


Fig. 17 SQL-commandbar

The ***SQL-commandbar*** with the SQL-keywords and the operators will simplify the creation of a query and will insert simultaneously neat paragraphs.

6.2.6 Find/Replace Tab

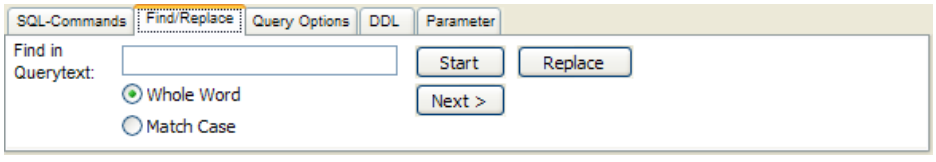


Fig. 18 find dialog

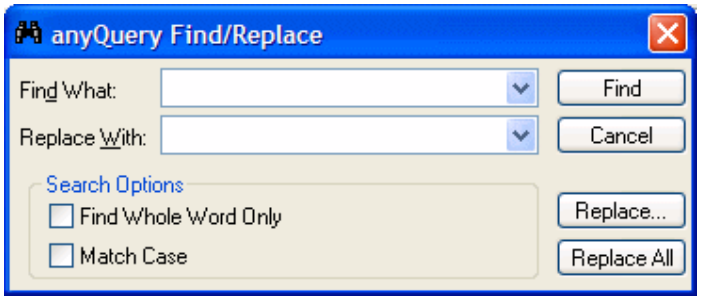
The ***find dialog tab*** is useful for long scripts to search for words or substrings.

The ***Whole Word option*** finds only phrase which matches on the words boundary, substrings will not be found.

The ***Match Case option*** does a case sensitive search.

The ***Start button*** allows you to start the search from the beginning of the script. The ***Next button*** starts the search from the current cursor position.

The ***Replace Button*** opens another window, where you can input the search/replace- text.



6.2.7 Query Options Tab

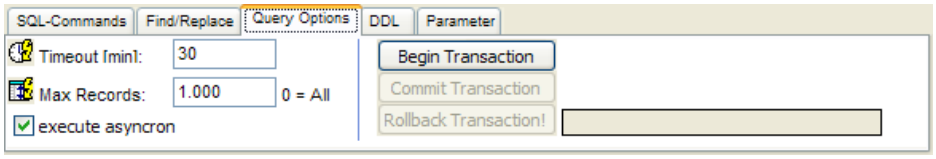


Fig. 19 query options

All options mentioned here are dependent on the database or database driver used so they might not work at all or function differently when applied in your database environment.

The ***query options tab*** allows you to set some useful options for all queries and handle database transactions.

The ***Timeout property*** sets the maximum execution time for a query, if the query exceeds this limit it will be cancelled.

The ***Max Records property*** sets the maximum number of records. The number of records that will be retrieved is always less or equal to this value. For displaying the max. number of records of a select query, put in a “0” into the Field and leave it by pressing ***TAB*** or ***ENTER***.

The three ***transaction buttons*** gives you the possibility to group several queries to one transaction and commit or rollback the changes.

6.2.8 DDL-Commandbar Tab

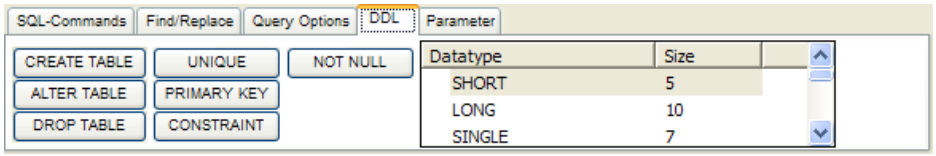


Fig. 20 DDL- Commands

The ***DDL-commandbar*** simplifies the creation of data definition statements.

All ***command buttons*** will at least display a useful frame if no Tables are selected for this statement.
The datatypelist contents the datatypes which were supported by the database. Doubleclick to insert the datatype name into the SQL-editor.

6.2.9 Parameter-Commandbar Tab

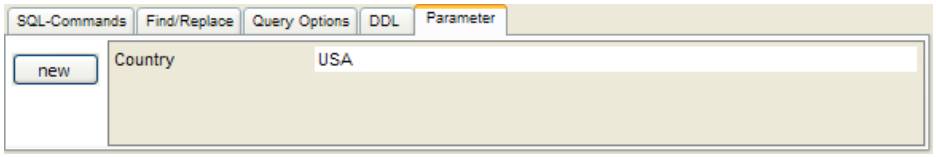
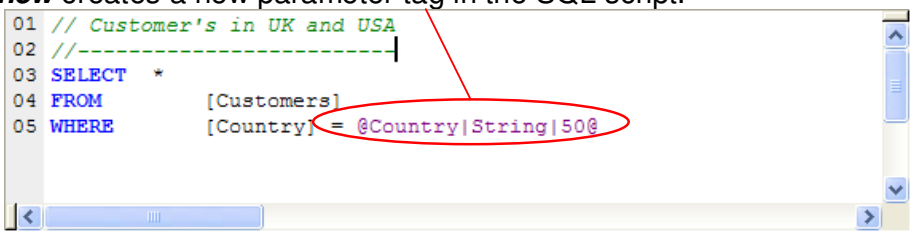


Fig. 21b Parameter

The ***Parameter-commandbar*** shows the parameters in the SQL-script..

In the field behind the Parametername, you can input a value which were used at script execution.

new creates a new parameter tag in the SQL-script.



6.2.9.1 Create new parameter

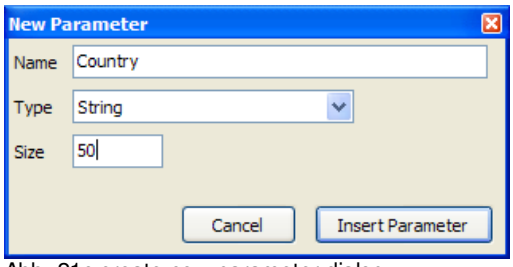


Abb. 21c create new parameter dialog

In the field Name you can name your parameter. With type you set the parametertype (String,Integer,Double,Date..). With size you can give String types a input length limit for parameter values (see Fig. 20b above).

6.2.10 SQL-Editor

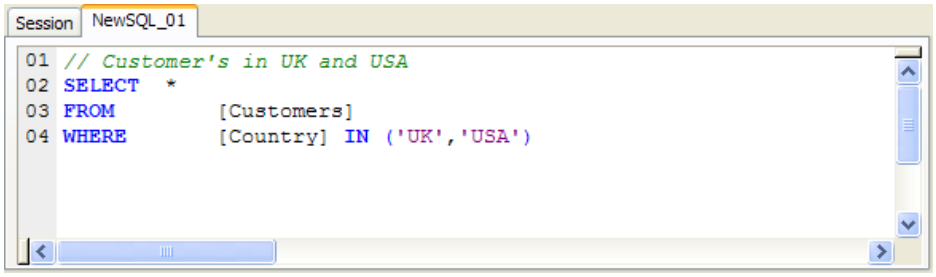


Fig. 22 SQL-Editor

Within the ***SQL-Editor*** you can create your queries. You can load already stored queries for modifications.

You have the possibility to format the displayed content and to color the keywords (see *Editing a Query*).

The editor is able to handle more than one query at a time, you can switch between the loaded queries by clicking on the appropriately named tab at the top of the editor area. In the right/top corner of the main window you find a little button with a cross to close the active query.

6.2.11 Result Area

The ***result area*** is at the bottom of the anyQuery window.

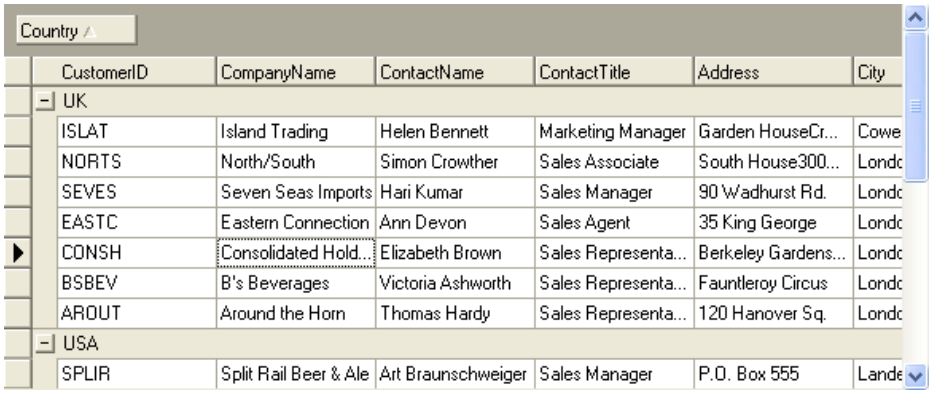

Country
CustomerID
CompanyName
ContactName
ContactTitle
Address
City
UK
ISLAT Island Trading Helen Bennett Marketing Manager Garden HouseCr... Cowe
NORTS North/South Simon Crowther Sales Associate South House300... Londc
SEVES Seven Seas Imports Hari Kumar Sales Manager 90 Wadhurst Rd. Londc
EASTC Eastern Connection Ann Devon Sales Agent 35 King George Londc
CONSH Consolidated Hold... Elizabeth Brown Sales Representa... Berkeley Gardens... Londc
BSBEV B's Beverages Victoria Ashworth Sales Representa... Fauntleroy Circus Londc
AROUT Around the Horn Thomas Hardy Sales Representa... 120 Hanover Sq. Londc
USA
SPLIR Split Rail Beer & Ale Art Braunschweiger Sales Manager P.O. Box 555 Lande

Fig. 23 Result Tab

The ***result tab*** shows a grid to display the results of your queries (see *Fig. 3 anyQuery User Interface*).

You can sort the result (see *Sort Menu*) and group the view (see *Group Menu*)

For processing in other tools like MS Excel transfer a part or the entire result into a MS Excel sheet via “drag & drop”.

6.2.12 Layout settings

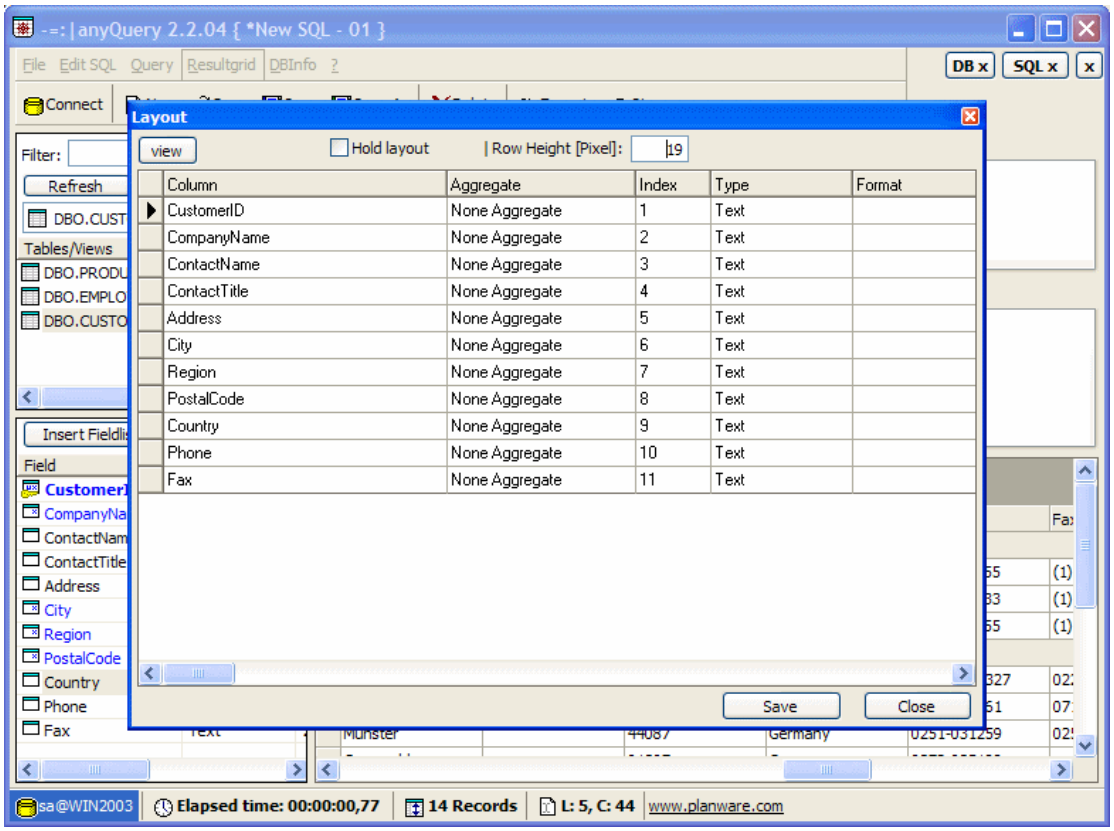


Fig. 24 Layout Tab

The ***layout window*** allows you to create simple printable reports. There are several functions to align and format values even some simple aggregate functions like ***summary*** are supported.

6.2.12.1 Session Tab

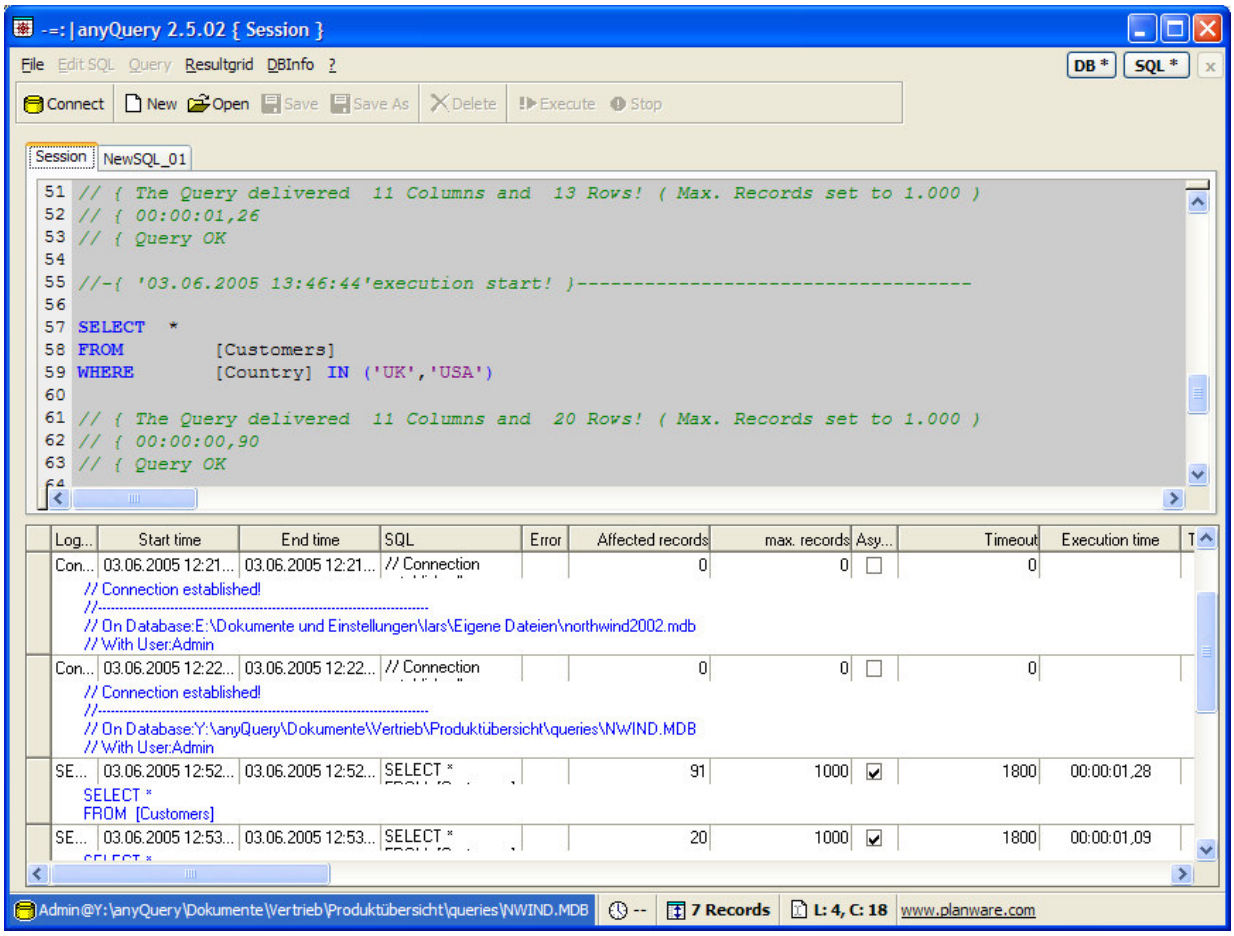

-=: | anyQuery 2.5.02 { Session }
File Edit SQL Query Resultgrid DBInfo ?
DB * SQL *
Connect New Open Save Save As Delete Execute Stop
Session NewSQL_01
// { The Query delivered 11 Columns and 13 Rows! (Max. Records set to 1.000)
// { 00:00:01,26
// { Query OK
//-{ '03.06.2005 13:46:44'execution start! }----------
SELECT *
FROM [Customers]
WHERE [Country] IN ('UK','USA')
// { The Query delivered 11 Columns and 20 Rows! (Max. Records set to 1.000)
// { 00:00:00,90
// { Query OK
Log... Start time End time SQL Error Affected records max. records Asy... Timeout Execution time
Con... 03.06.2005 12:21... 03.06.2005 12:21... // Connection 0 0 0
// Connection established!
// On Database:E:\Dokumente und Einstellungen\lars\Eigene Dateien\northwind2002.mdb
// With User:Admin
Con... 03.06.2005 12:22... 03.06.2005 12:22... // Connection 0 0 0
// Connection established!
// On Database:Y:\anyQuery\Dokumente\Vertrieb\Produktübersicht\queries\NWIND.MDB
// With User:Admin
SE... 03.06.2005 12:52... 03.06.2005 12:52... SELECT * 91 1000 1800 00:00:01,28
SELECT *
FROM [Customers]
SE... 03.06.2005 12:53... 03.06.2005 12:53... SELECT * 20 1000 1800 00:00:01,09
Admin@Y:\anyQuery\Dokumente\Vertrieb\Produktübersicht\queries\NWIND.MDB
7 Records
L: 4, C: 18
www.planware.com

Fig. 25 Session Tab

The ***session tab*** shows a list of processed queries for the current connection with execution time and the number of rows and columns in the result set. It also logs any errors. Furthermore you can copy statements from here to the ***SQL-Editor***.

The session log will be saved in a textfile named ‘anyQuerySession.txt’ after you quit the program.

6.2.13 Helpful result formatting by popup menu

By clicking the right mouse button at the result area, a popup men appears. There you can quick set some resultgrid formats.(see also Chapter 'Resultgrid Menu')

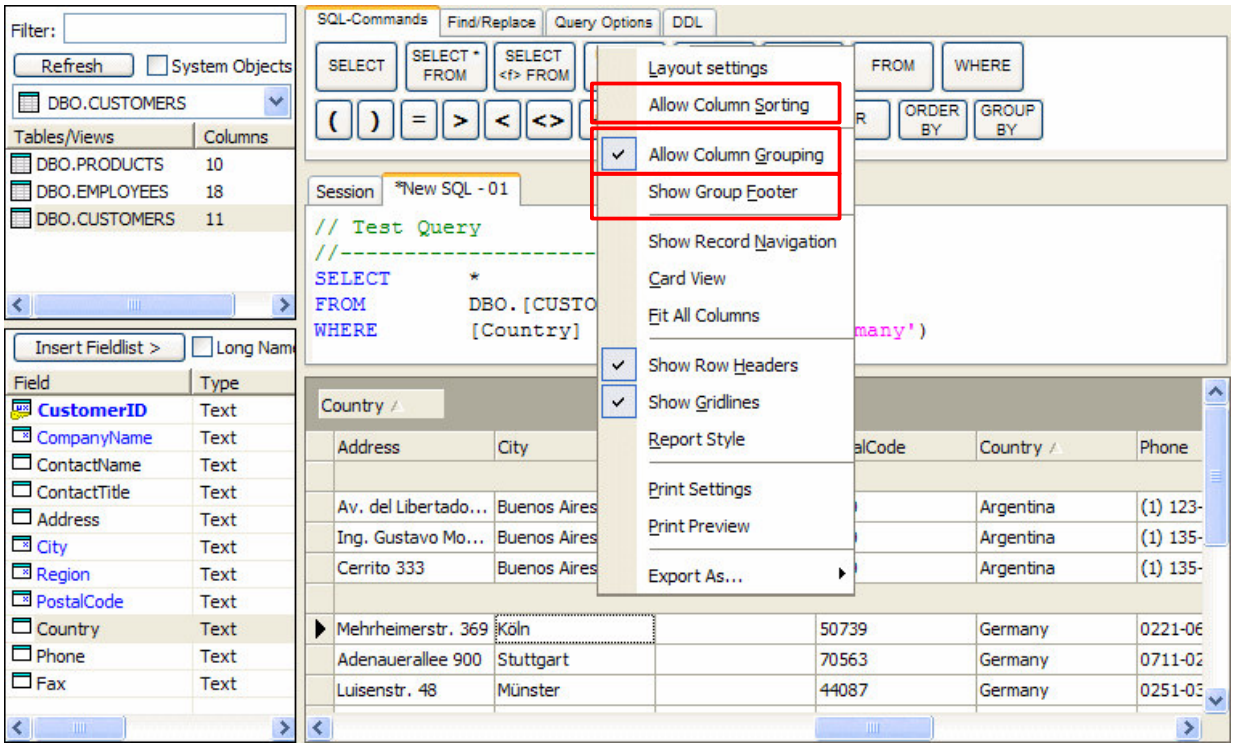


Abb. 26 Result formatting

Sorting:
By clicking on the ***Allow Column Sorting menu*** you can enable and disable the column sorting function. When the function is enabled you can sort a column by clicking on the column header. Every click on the column header toggles between ascending and descending order.

Grouping:
By clicking on the ***Allow Column Grouping menu*** you can enable and disable the column grouping function. When the function is enabled you can group the data by one or more columns. Drag a column to the area above the grid. The grid will show the group header as shaded rows with **+** or **-** in front of it to expand or collapse the data portion.

Show group footer:
By clicking on the ***Show Group Footer menu*** you can enable and disable a group footer for each group. The group footer can display a result of an aggregate function which you can define in the layout tab for each column.

6.2.14 Statusbar

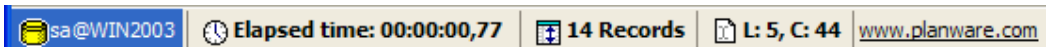


Fig. 27 Statusbar

After you have chosen a database connection via “File Menu / Open Database Connection”, **anyQuery** will display the user name and the name of the database in the left portion of the ***statusbar***.

The second field of the ***statusbar*** displays the execution time of the query.

The middle portion of the ***statusbar*** displays the number of records of the executed query shown in the ***result grid***.

The right most field of the ***statusbar*** displays the actual line and column number of the ***SQL-Editor***.

6.2.15 Settings Dialog

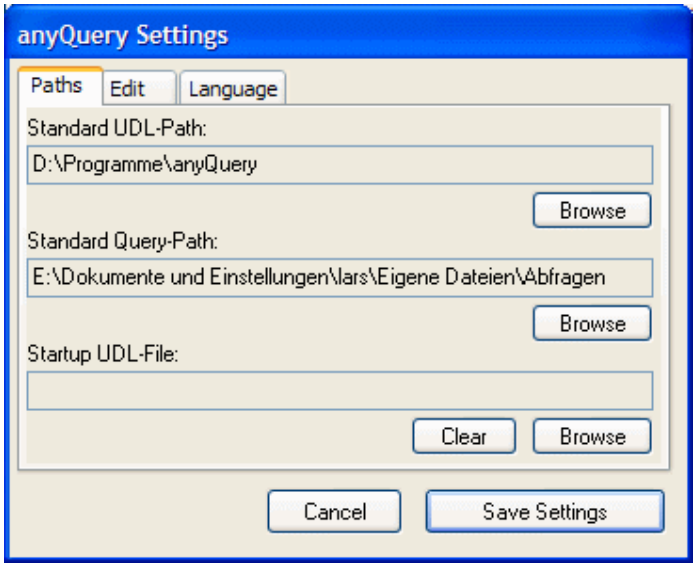


Fig. 28 Settings Dialog, Path Options

In the ***settings dialog*** you can define standard pathes for UDL files and queries. Besides that you can assign a UDL file which will be loaded at startup. The ***Clear button*** resets this so no connection will be made automatically at startup.

6.2.15.1 EditTab

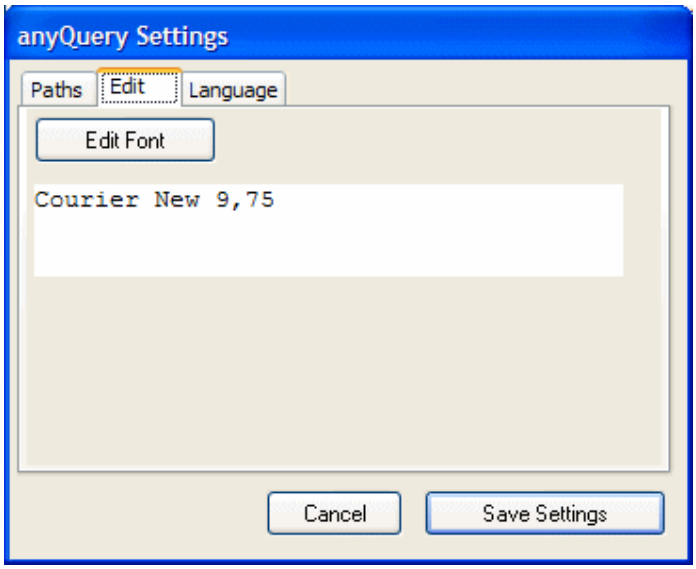


Fig. 29 Edit Tab

Within the ***edit tab*** you can make some font settings for the ***SQL editor***.

6.2.15.2 Language-Tab

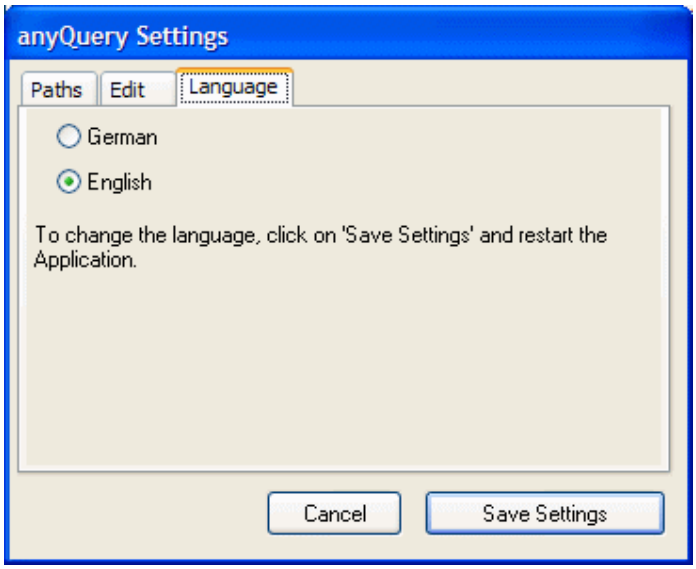


Abb. 30 Language-Tab

Within the ***language-tab*** you can select the User Interface language for ***anyQuery*** . At the moment you can choose between German and English. To activate the language selection save the settings and restart the program.

7 Working with anyQuery

7.1 Preface

This chapter will explain how to manage some basic tasks with anyQuery. To do so we will use a sample database of Microsoft Access called ***NORDWIND.mdb*** or ***NWIND.mdb***. It is not absolutely necessary to have it to follow these examples you can use a different sample database as you like.

7.2 Database connection

Database connections are stored as ***.udl*** files so you only need to setup them once.

To organize your connections you can set a default path in the ***settings dialogue.*** Select a path under ***Standard UDL-Path*** and your ***.udl*** files will be opened from and saved into this folder.

7.2.1 Creating a Database connection

To create a data base connection choose the ***File menu***. From the submenu select ***New data base connection*** and the dialog ***Data Link Properties*** will appear.

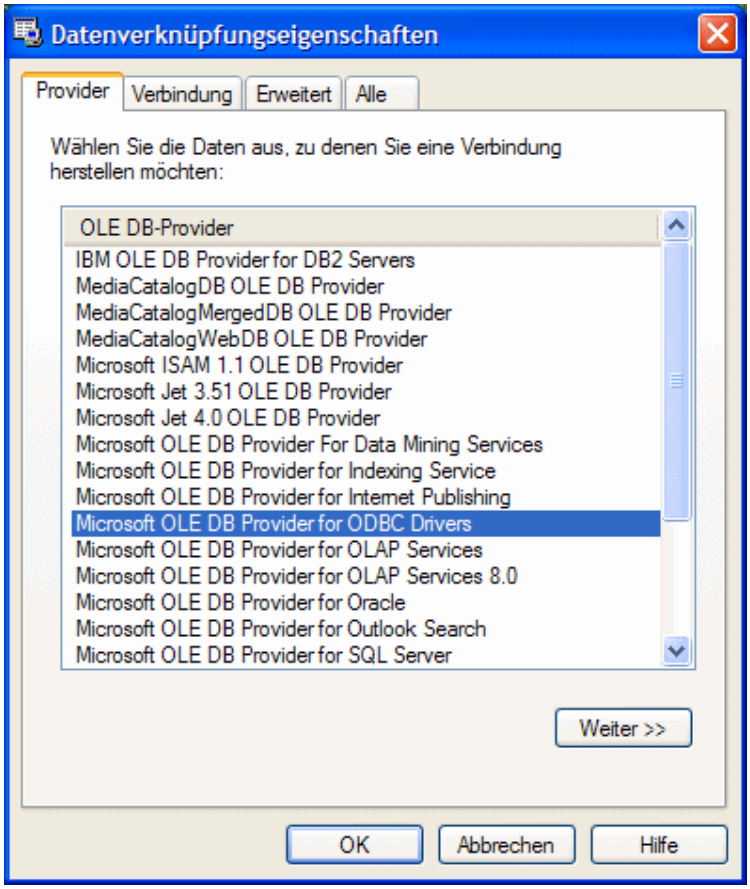

Datenverknüpfungseigenschaften
Provider
Verbindung
Erweitert
Alle
Wählen Sie die Daten aus, zu denen Sie eine Verbindung herstellen möchten:
OLE DB-Provider
IBM OLE DB Provider for DB2 Servers
MediaCatalogDB OLE DB Provider
MediaCatalogMergedDB OLE DB Provider
MediaCatalogWebDB OLE DB Provider
Microsoft ISAM 1.1 OLE DB Provider
Microsoft Jet 3.51 OLE DB Provider
Microsoft Jet 4.0 OLE DB Provider
Microsoft OLE DB Provider For Data Mining Services
Microsoft OLE DB Provider for Indexing Service
Microsoft OLE DB Provider for Internet Publishing
Microsoft OLE DB Provider for ODBC Drivers
Microsoft OLE DB Provider for OLAP Services
Microsoft OLE DB Provider for OLAP Services 8.0
Microsoft OLE DB Provider for Oracle
Microsoft OLE DB Provider for Outlook Search
Microsoft OLE DB Provider for SQL Server
Weiter >>
OK
Abbrechen
Hilfe

Fig. 31 Window for creating a data link file

From the ***Provider Tab*** choose the OLE DB-Provider and press the ***Next Button*** to switch to the ***Connection Tab***. Select the file of the database that needs to be connected or fill in the parameters of the provider. Username and password are optional. Click the ***Test Connection button*** to immediately check for a proper working connection (username and password are mandatory).

To use the new connection click the ***Open Database Connection submenu*** in the ***File menu*** and choose the ***.udl-file*** from the dialog.

7.2.2 Modifying a Database Connection

Choose the ***File menu*** and select the ***submenu Edit Database Connection*** for editing the database connection of a stored ***.udl-file***.

7.2.3 Opening a Database Connection

To work with anyQuery you have to connect to a database first. Open a stored ***.udl-file*** from the File menu and select ***submenu Open Database Connection***. You can also choose a connection from the ***Open Recent Connection menu***.

7.2.4 Creating a Connection for NWIND.mdb

Select ***New Database Connection item*** from the ***File menu***. Select one of the ***Microsoft Access OLE DB drivers*** from the list and click the ***next button***. Select the database location and click the ***OK button***. Enter a name for the new ***udl-File*** in the next dialogue and click the ***save button***. Now you have successfully created a new database connection.

7.3 Working with Queries and Scripts

There is no difference between queries and scripts except that a script is composed of several queries which are separated by a semicolon. We prefer the extensions ***.qry*** for queries, ***.sql*** for scripts and ***.ddl*** for data definition statements, but there is no need to do so. anyQuery recognizes statements as a script when there are at least 2 semicolons in it. You should not end a normal one statement query with a semicolon because this will most probably produce an error. A script is executed statement by statement and you will get the result printed in the ***Session Tab***. Scripts can not include ***SELECT queries*** they are only for ***action queries***. The execution of a script will not be stopped if an error occurs, if you would like to preserve your data integrity you can set a ***transaction*** before you click on the ***Excecute button***, watch the logging and ***commit*** or ***rollback*** afterwards.

Because there is no difference between queries and scripts from now on we will only talk about queries.

There is no limit to the number of queries to be open at the same time in anyQuery.

To create a new script use the ***New SQL Script menu*** or the shortcut ***ALT+N***. As long as you don't save it the query will have a name like ****New SQL - 01***. You can select a query you want to work with by clicking on the corresponding named tab below the ***SQL-Editor***. To close it, click on the small cross in the left corner, if you made any changes to the query you will be asked to save it.

Normally it makes sense to organize your queries in folders and subfolders, to do so use the ***settings dialog*** and set the ***Standard Query-Path*** to a folder you would like your queries to be stored in. If you will later on open a query from a different location anyQuery will remember this folder for the rest of the session for opening and saving operations.

Queries are stored as plain text, you can edit them within every standard editor or execute them with any standard SQL processor.

We will use the database connection for the ***NWIND.mdb*** we have created before for our next steps. Choose ***Open Database Connection*** from the ***File menu*** and select the corresponding file. After a few seconds you will see the connection information in the left corner of the ***Status Bar***.

7.3.1 Editing a Query

To compose your queries you can simply type your statements into the ***SQL-Editor***. Much easier it is to use some of the facilities of anyQuery like the ***tables list*** and ***fields list*** and the ***SQL Command Bar***.

Now please select the ***customers*** table from the ***tables combobox***, it will immediately appear in the ***tables list***. When you click on the customers table entry you will see the field names and extended information in the ***fields list***.

Now select the customers table and click on the ***SELECT * FROM button*** and you will get a complete SQL like this:

```
SELECT      *
FROM        CUSTOMERS
```

Click on the ***Execute button*** to execute it, the result will be displayed in the ***Result Grid*** below. If you think that this is not a useful query - ok, delete it by clicking on the ***Delete button***. Now select some of the fields from the ***fields list***, hold down the ***CTRL*** or ***SHIFT key*** to select more than one field, after that click on the ***SELECT <f> FROM button*** and you will get a statement like this:

```
SELECT      [CustomerID], [Address], [ContactName], [Fax], [Phone]
FROM        CUSTOMERS
```

Don't think about the brackets, this is access style and will be omitted when you connect to a real SQL database.

You can also use the ***Insert Fieldlist button*** to insert all the selected fields, but this will only insert the fields not the key words.

Now you can extend your query a little bit, we want to add a ***WHERE*** part. Position the cursor behind the word ***customers*** in the editor and click on the ***WHERE button***. Double click on the field name ***City*** and on the ***= button***. Now type the condition ***'London'***. You will get this statement:

```
SELECT      [CustomerID], [Address], [ContactName], [Fax], [Phone]
FROM        CUSTOMERS
WHERE       [City]='London'
```

After you have executed it we will see how to perform an update on one of the records.

Open a new query by pressing ***ALT+N***, you will get an empty worksheet. Select the record where the contact name is ***Ann Devon*** and from the ***Query menu*** choose ***Build Update*** and the ***SQL-Editor*** will show the following statement:

```
UPDATE CUSTOMERS
SET
WHERE CUSTOMERID = 'EASTC'
```

They only thing you have to do is to fill in the fields and values you want to update. Similar to this is the function ***Build Where***, but you will only get the where statement from above.

Ok, now we switch back to our first query and try to export our result. There are 4 possibilities to do so:

- print a report
- use drag and drop to export it to another OLE aware application like EXCEL

- export it as a text file with a predefined field delimiter
- export it as XML file (this is a non-standard XML format, maybe Microsoft will update their ADO library sometime)

To print a report you only have to choose ***Print Preview*** from the ***Resultgrid menu***, there you have some options to setup the page and print everything. anyQuery includes also a small report writer which will be discussed later.

Drag and Drop is simple, only select the rows from the record set you want to export and drag them (hold the left mouse button) to your preferred application (Notepad doesn't work).

To export the whole record set to a text file click on the ***Export As... Text-File item*** in the ***Resultgrid menu***, choose a filename and click the ***Open button***. When the export is finished you will get a message box.

The standard field delimiter for text export is a ***tab stop***, but you can configure it in the ***anyQuery.ini file*** in the anyQuery program directory. The keyword is ***FldDelimiter***, if it is not present the tab stop will be used. To define another delimiter only add/modify the FldDelimiter entry in the ***Settings*** section of the ***ini file***. The value of ***FldDelimiter*** is the ASCII code of the character. If you for example want to change the delimiter to a semicolon you should have a line like

```
FldDelimiter=59
```

in your ***anyQuery.ini file***. Changes to the ***ini file*** will only take effect after the next start of anyQuery.

The last possibility is to do a XML export. Click on the ***Export As... XML-File item*** in the ***Resultgrid menu***, choose a filename and click the ***Open button***. After the export has finished you will get a message box.

Now to some additional features: comments and formatting.

In every query or script you can use comments at any position. Besides documentation comments are good for testing statements. A comment starts with a // and spans one line.

```
// this is a comment
SELECT      [CustomerID], [Address], [ContactName], [Fax], [Phone]
FROM        CUSTOMERS
// and this too
WHERE       [City]='London'
AND         [CustomerID]='NORTS'
```

To comment or uncomment a whole block of text you can use the ***Comment Row function*** or ***UnComment Row function*** from the ***Edit SQL menu***. You can also use the shortcuts ***ALT+C*** or ***ALT+U***. To do so mark the region of text and click on the menu item or use the shortcut, the color of the marked text will change to green.

The function which colors your text is named ***Autosyntax Coloring*** and can be switched on and off in the ***Edit menu***. This makes sense with long scripts in which the coloring function can consume a noticeable amount of time.

To debug statements which were generated by applications you can paste this often unformatted SQLs to the ***SQL Editor*** and use the ***Format SQL function*** from the ***Edit menu*** to let anyQuery do the job of making it more readable. This SQL for example

```
SELECT [CustomerID], [Address], [ContactName], [Fax], [Phone] FROM CUSTOMERS
WHERE [City]='London' AND [CustomerID]='NORTS'
```

will be formatted as

```
SELECT      [CustomerID],
            [Address],
            [ContactName],
            [Fax],
            [Phone]
FROM        CUSTOMERS
WHERE       [City] = 'London'
AND         [CustomerID] = 'NORTS'
```

Keywords and field lists will be made up and tab stops will be inserted.

To use your query build with anyQuery in any program code it is often useful to convert it to upper case and replace the tab stops with spaces. You can achieve this with the ***Ucase function*** and ***Delete Tabs function*** from the ***Edit menu***.

You can indent blocks of text yourself using the ***Increase Indent function*** and ***Reduce Indent function*** from the ***Edit menu***. You can also use the shortcuts ***ALT+RightArrow*** or ***ALT+LeftArrow***. To do so mark the region of text and click on the menu item or use the shortcut and the indent of the whole text block will be increased or reduced.

To change the font style of the ***SQL Editor*** open the ***Settings dialogue*** from the ***File menu*** and switch to the ***Edit tab***. Now you are able to change the ***font*** and the ***font size***. Keep in mind that a TrueType font will mess up the formatting of the ***SQL Editor***.

7.4 Building a report

For this paragraph we will use the following statement as an example how to sort and group the result and build a report:

```
SELECT      [CategoryID], [ProductID], [ProductName], [UnitPrice], [UnitsInStock]
FROM        PRODUCTS
```

When you execute this query you will get a resultset similar to this:

CategoryID	ProductID	ProductName	UnitPrice	UnitsInStock
1	1	Chai	18,00 €	39
1	2	Chang	19,00 €	17
2	3	Aniseed Syrup	10,00 €	13
2	4	Chef Anton's Caj...	22,00 €	53
2	5	Chef Anton's Gu...	21,35 €	0
2	6	Grandma's Boyse...	25,00 €	120
7	7	Uncle Bob's Orga...	30,00 €	15
2	8	Northwoods Cra...	40,00 €	6
6	9	Mishi Kobe Niku	97,00 €	29
8	10	Ikura	31,00 €	31
4	11	Queso Cabrales	21,00 €	22
4	12	Queso Manchego...	38,00 €	86

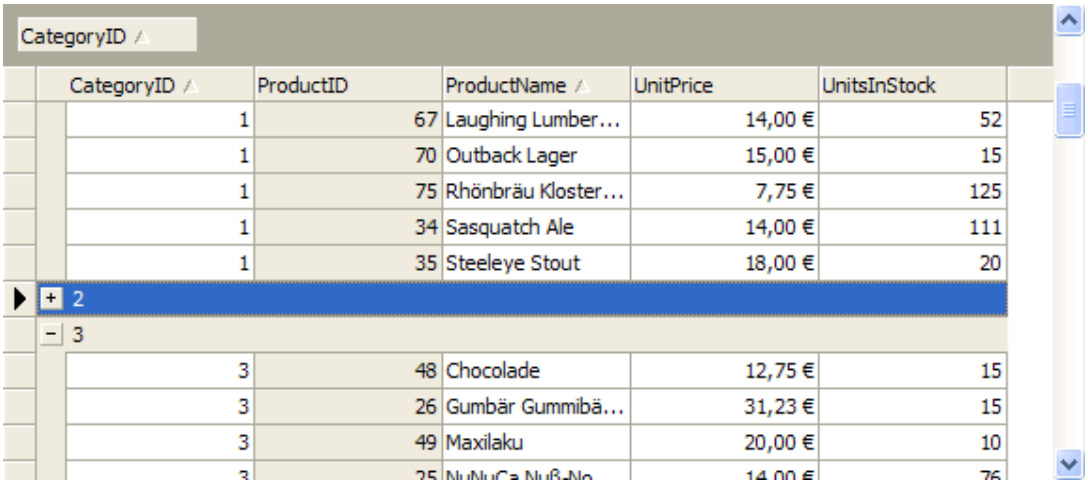
Because the resultset is very small we can do some very common tasks easily without changing the query:

To sort the resultset ascending by ProductName click right mouse button and choose the ***Allow Column Sorting menu*** to activate the sort function and on one of the column headers - here the ProductName - and the column will be sorted ascending. If you click once more on the same ***column header*** the sort order will be toggled to descending and so on. The ***small arrow*** in the ***column header*** points at the position where you will find the smaller values - bottom or top of the list.

CategoryID	ProductID	ProductName	UnitPrice	UnitsInStock
1	1	Chai	18,00 €	39
1	2	Chang	19,00 €	17
1	39	Chartreuse verte	18,00 €	69
2	4	Chef Anton's Caj...	22,00 €	53
2	5	Chef Anton's Gu...	21,35 €	0
3	48	Chocolade	12,75 €	15
1	38	Côte de Blaye	263,50 €	17
8	58	Escargots de Bou...	13,25 €	62
5	52	Filo Mix	7,00 €	38
4	71	Flotemysost	21,50 €	26
4	33	Geitost	2,50 €	112
2	15	Genen Shouyu	15,50 €	39

Now you can click on the price to find out the smallest and the highest price.

The ***Allow Column Grouping menu*** and ***Show Group Footer menu*** allow you to group the resultset by the values of a specific column and display a footer for calculations at the bottom of each group. To do so, choose the the ***Allow Column Grouping menu*** and a box in the upper region of the grid appears. Click for example on the CategoryID, drag it to the box and drop it there. The resultset will be grouped by the CategoryID and dark bars will highlight the groups. The group header has a small ***button*** with **+** or **-** sign to expand or collapse the according group.



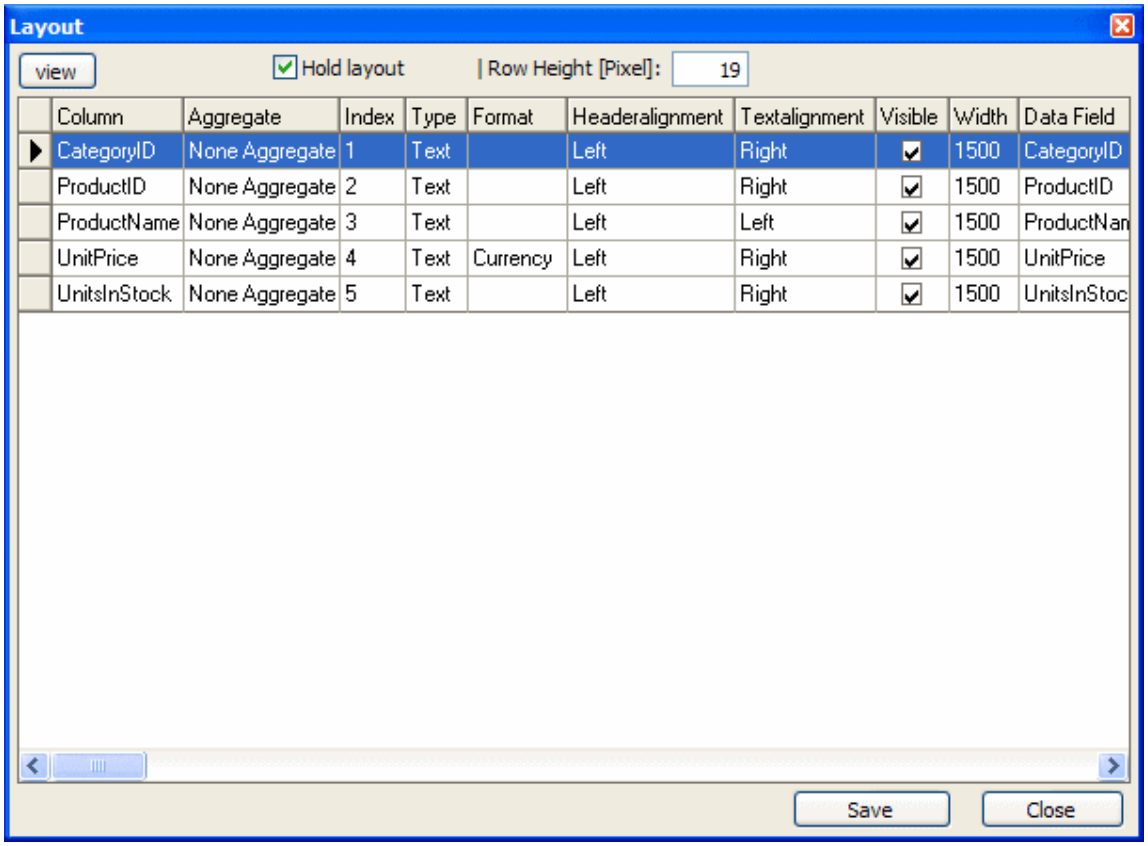
CategoryID

CategoryID	ProductID	ProductName	UnitPrice	UnitsInStock
1	67	Laughing Lumber...	14,00 €	52
1	70	Outback Lager	15,00 €	15
1	75	Rhönbräu Kloster...	7,75 €	125
1	34	Sasquatch Ale	14,00 €	111
1	35	Steeleye Stout	18,00 €	20
+ 2				
− 3				
3	48	Chocolade	12,75 €	15
3	26	Gumbär Gummibä...	31,23 €	15
3	49	Maxilaku	20,00 €	10

Now choose the ***Show Group Footer menu*** and dark group footers will be displayed for each group. For the group footer you can choose from a limited list of ***aggregate functions***:

function	description
Count	Displays the count of records in a group.
Sum	Displays the sum of values in a group for the column.
Average	Displays the average of the values in a group for the column.
Min	Displays the minimum value in a group for the column.
Max	Displays the maximum value in a group for the column.
Standard Dev	Displays the standard deviation in a group for the column.
Value Count	Displays the count of records with non-null values in a group for the column.

Imagine, we want to make a report with the number of items we have in stock for each group and what the average price. To prepare the report choose the ***Layout settings menu*** and you will see all the parameters for the report in the layout window:



The ***Data Field column*** shows you the field name and we will reference on that and on the column header. Ok, we will go through the columns from left to right and explain what to select or fill in for this report.

In the ***Column column*** fill in

Product No for ***ProductID***

Product for ***ProductName***

Price for ***UnitPrice***

Units for ***UnitsInStock***

In the ***Aggregate column*** select

Average for ***UnitPrice***

Sum for ***UnitsInStock***

In the ***Headeralignment column*** select

Center for ***UnitPrice***

Center for ***UnitsInStock***

In the ***Visible column*** unselect

CategoryID

In the ***Group Prefix column*** fill in

Category for ***CategoryID***

In the ***Total Prefix column*** fill in

avg. Price for ***UnitPrice***

sum for ***UnitsInStock***

For the changes to take effect, please click the ***Save button***. Also check the ***Hold layout checkbox***, this will hold the layout even if you execute the query again. If you leave the Hold layout checkbox unchecked the ***Result Grid*** will be initialized with default values and your layout will not be saved/be gone.

When closing the layout window you will see the changes we have done in the grid.

CategoryID			
Product No	Product	Price	Units
77	Original Frankfur...	13,00 €	32
61	Sirop d'érable	28,50 €	113
63	Vegie-spread	43,90 €	24
		avg. Price 23,0625	sum507
Category 3			
48	Chocolade	12,75 €	15
26	Gumbär Gummibä...	31,23 €	15
49	Maxilaku	20,00 €	10
25	NuNuCa Nuß-No...	14,00 €	76
16	Pavlova	17,45 €	29
27	Schoggi Schokolade	43,90 €	49

There are three possibilities to adjust the column width:

1. in the ***Layout Window***: set the value of the ***column Width*** for each ***Data Field***
2. in the ***Resultgrid***: double click on the grid line between two columns to automatically fit the column width to the contained data
3. in the ***Resultgrid***: select ***Fit All Columns*** from the ***Resultgrid menu*** to fit all columns to the width of the grid

We can now save and print our small report. For saving use the ***Save As button*** and select the filetype ***Report*** and fill in a name for it. A Report consists of two files:

- the query with the extension ***.rpt***
- the report definition with the extension ***.rpt.bin***

If you would like to switch between queries and reports during your anyQuery session, you better save report and layout to a file, because otherwise your layout will get lost when switching to another query.

Before printing we will take a short look at the ***Print Settings*** and the ***Print Preview***.

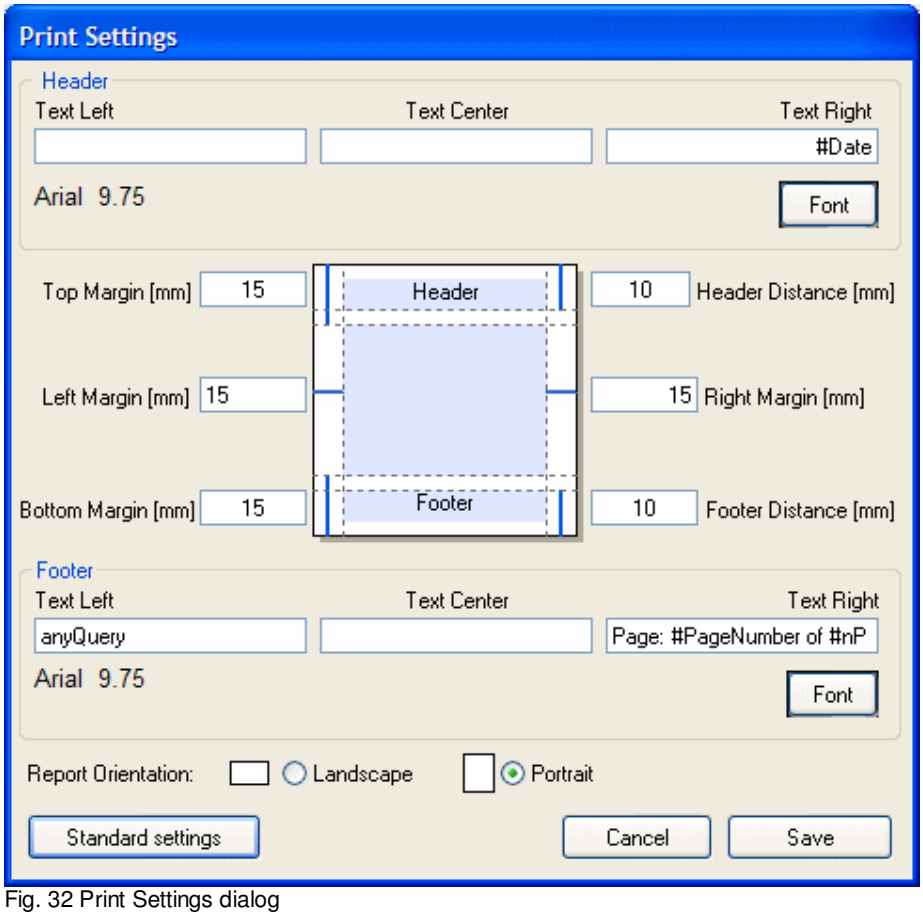


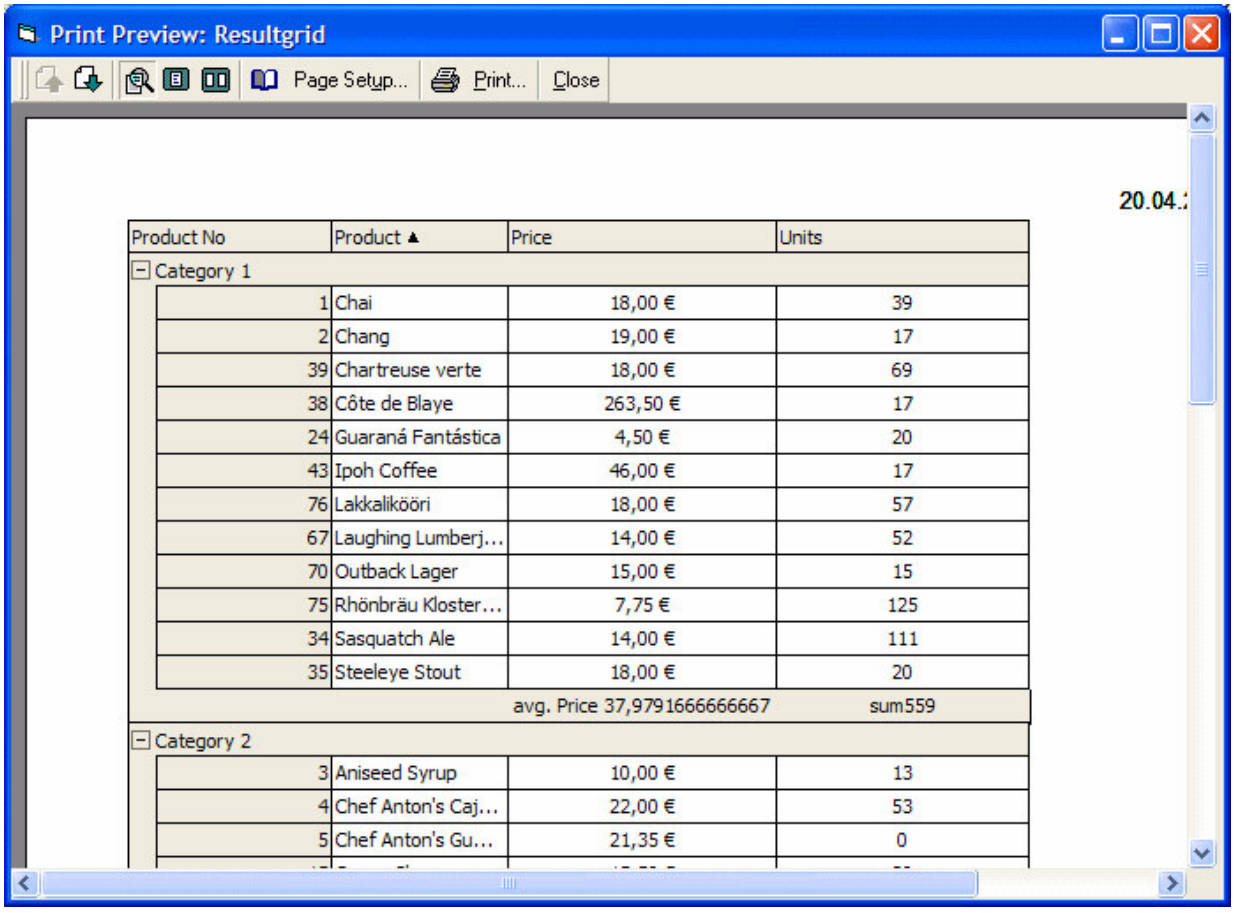
Fig. 32 Print Settings dialog

Within the ***Print Settings dialog*** you can define the text for the left, mid and right headers and footers of your report. Additionally the following functions can be used to display page numbers and date in the report. Use a hash in front of the function name. You may also select a separate font for headers and footers by using the ***Font button***. The middle section of the dialog enables you to setup the ***page layout***.

function	description
PageNumber	current page number
nPages	total number of pages
Date	current date and time

The ***Standard Settings button*** sets useful values for all options and you will get a layout which will fit for most purposes.
To save your changes click the ***Save button***, but don't forget to save the whole report to a file again, otherwise your changes will be lost, when you close the session or uncheck the ***Hold layout checkbox***.

From the ***Resultgrid menu*** select ***Print Preview*** to see your report as it will appear printed.


Print Preview: Resultgrid
Page Setup...
Print...
Close
20.04.
Product No
Product ▲
Price
Units
Category 1
1 Chai 18,00 € 39
2 Chang 19,00 € 17
39 Chartreuse verte 18,00 € 69
38 Côte de Blaye 263,50 € 17
24 Guaraná Fantástica 4,50 € 20
43 Ipoh Coffee 46,00 € 17
76 Lakkalikööri 18,00 € 57
67 Laughing Lumberj... 14,00 € 52
70 Outback Lager 15,00 € 15
75 Rhönbräu Kloster... 7,75 € 125
34 Sasquatch Ale 14,00 € 111
35 Steeleye Stout 18,00 € 20
avg. Price 37,9791666666667 sum559
Category 2
3 Aniseed Syrup 10,00 € 13
4 Chef Anton's Caj... 22,00 € 53
5 Chef Anton's Gu... 21,35 € 0

Within the print preview click on the ***printer symbol*** to print the whole report - at the moment it is not possible to print ranges or single pages.

7.5 Exporting Database Information

anyQuery has 6 functions to export Information about the actual database to text files. The resulting text files are tab stop delimited and will be written to the anyQuery program directory. These functions are pooled in the ***DBInfo menu***. The following table lists the menu items, the name of the export file and gives a short description of each function.

menu item	export file	description
All Tables	Tables.txt	provides a list of all tables in the current database
All Fields	Fields.txt	field names, datatypes and properties of all fields in all tables
All Views	Views.txt	provides a list of all views in the current database
All View-Fields	ViewFields.txt	field names, datatypes and properties of all fields in all views
All Index-Fields	Indexes.txt	index type and index fields of all indexes in the current database
All Recordcount	Recordcount.txt	record count of all tables in the current database

8 SQL-Links

8.1 Links for Introduction, Help and Database Provider

Homepages Database Provider
MySQL: http://www.mysql.com/
ORACLE: http://www.oracle.com/
IBM-DB2: http://www-4.ibm.com/software/data/db2/
Microsoft SQL Server: http://www.microsoft.com/sql/default.asp
Mini SQL: http://www.hughes.com.au/products/
SQL Tutorials
http://www.dcs.napier.ac.uk/~andrew/sql/
http://www.w3schools.com/sql/default.asp
http://www.sqlcourse.com/
http://www.sqlcourse2.com/
German Tutorial for MySQL: http://www2.rent-a-database.de/mysql/
DB2 – Manuals with SQL-Reference
http://www-4.ibm.com/cgi-bin/db2www/data/db2/udb/winos2unix/support/techlib.d2w/report
Link Portal
http://www.sql.org/
SQL-Magazine
SQL-Server Magazin: http://www.sqlmag.com/
SQL-Books
Markt+Technik: http://www.mut.com/leseecke/leseecke.asp
http://ourworld.compuserve.com/homepages/Graeme_birchall/HTM_COOK.htm